

REMARKS

This second supplemental response is being presented to make more clear that the level compensating film (of claim 15), second layer of the upper insulating film (of claim 22) and spin on glass film (of claim 25) are disposed substantially no higher than a highest level of a metal wiring.

Attached is a marked-up copy of Figure 6 of this application that clearly shows the level compensating film (10b) is disposed substantially no higher than a highest level of a metal wiring layer (9a). The highest levels of the metal wiring layer are marked on the attached Figure 6. The metal layer highest levels are at a level near the top surface of the level compensating film (10b). The bulk of the film (10b) is at or below the peak of the metal wiring layer (9a).

Claim 14 is not amended as it already states that the level compensating film is partially removed below the pad metal. Claim 14 specifically recites that "a portion of said level difference compensating film under said pad metal is removed." Removal of a portion of the film reduces the thickness of the level compensating film underneath the pad metal. Narui does not suggest removing a portion of the SOG film (31, 39) from below the Narui SOG film is very thick below the lower portions of the interconnection 41B and Y select line YS.

The pad metal is protected against damage because of the minimum thickness of the level compensating/second layer/SOG film and because the film has a reduced thickness below the pad metal. The pad metal overlies the stack of interlayer insulating

layers and wiring layers. The level compensating/second layer/SOG film is often formed of a mechanically brittle material. External forces tend to be applied to the pad metal and these forces can break a thick SOG film underling the pad metal. A thin SOG film is less prone to fracture due to forces from an overlying pad metal. Reducing the thickness of the SOG film under the pad metal and/or minimizing the thickness of the film by limiting the height of the film to that of the metal wiring layer reduces the tendency that the film will break due to forces transmitted through the pad metal. In addition, the reduced thickness SOG film and/or minimum thickness SOG film is still able to compensate for level differences due to the metal wiring layer.

In contrast to the claimed invention as recited in claims 15, 22 and 25, Narui does not teach placing a level compensating film that is substantially no higher than and substantially only between metal wiring layers. In Narui, the SOG film (31, 39) is a thick film over the metal wiring layer, in addition to being between the metal wiring layer. The Narui SOG film is not formed to a "minimum thickness" needed to compensate for the metal wiring layer and is predominately above the metal wiring layer. In particular, the Narui SOG film is very thick over the top of the metal wiring layer (30A, 30B, BL1, BL2, 35, 35B). This is directly contrary to the claimed invention as recited in claims 15, 22 and 25.

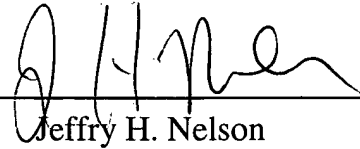
All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application would be appreciated.

TOYOSAWA et al
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Respectfully submitted,

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